

REMARKS/ARGUMENTS

Reconsideration and withdrawal of the rejections of the application are respectfully requested in view of the amendments and remarks herewith, which place the application into condition for allowance. The present amendment is being made to facilitate prosecution of the application.

I. STATUS OF THE CLAIMS AND FORMAL MATTERS

Claims 1 and 3-14 are currently pending. Claim 2 is hereby canceled. Claims 1, 4-6 and 10-13 are independent. Claims 1 and 3-13 are hereby amended. No new matter has been introduced. Support for this amendment is provided throughout the Specification as originally filed.

Changes to the claims are not made for the purpose of patentability within the meaning of 35 U.S.C. §101, §102, §103, or §112. Rather, these changes are made simply for clarification and to round out the scope of protection to which Applicants are entitled.

II. REJECTIONS UNDER 35 U.S.C. §112

Claims 1-14 were rejected as allegedly failing to comply with the enablement requirement under §112.

First, the Office Action states, “There is no explicit or implicit disclosure of how an image can have distortion eliminated in a single step.” Second, the Office Action notes each independent claim recites, “wherein the high quality picture has a higher quality than the selected entirety or the portion of the picture image whose distortion has been eliminated.” The Office Action asserts the recited feature is not enabled in the specification and conflicts with the “single

step” limitation described above. The contention seems to be that classification adaptive processing consist of two steps: classification processing and adaptive processing.

Moreover, the Office Action contends claim 2 “offers evidence that classification adaptive processing is part of the elimination of distortion and conversion into an image with increased resolution.” Office Action at page 2.

Applicants respectfully traverse this rejection.

Applicants contend the Office Action misconstrues classification adaptive processing as used in the specification. At the stage of the classification processing, the image has not had the distortion eliminated and has not been converted into a high quality image with increased resolution. The classification processing is for determining a class code based on the entirety or a portion of the picture image, not processing the picture image. Then the adaptive processing is associated with the single step as recited in claim 1.

Applicants respectfully request withdrawal of the §112 rejection of claims 1-14.

III. REJECTIONS UNDER 35 U.S.C. §103

Claims 1, 4, 5 and 12-14 were rejected under 35 U.S.C. §103(a) as allegedly unpatentable over U.S. Patent No. 5,280,540 to Addeo et al. (“Addeo”) in view of U.S. Patent No. 5,438,357 to McNelley.

Applicants respectfully traverse this rejection.

Independent claim 1 is representative and recites, *inter alia*:

“picture image conversion means for both eliminating distortion of the selected entirety or the portion of the picture image and for converting the selected entirety or portion into high quality picture image with increased resolution in a single step

...

the picture image conversion unit eliminates distortion of the entirety or a portion of the picture image selected by the selector unit and converts such picture image into high quality picture image with increased resolution by an adaptive processing in a classification adaptive processing.”

Applicants re-assert the arguments presented in response to the Office Action of September 21, 2005, December 28, 2005, March 6, 2006 and July 11, 2006.

As understood by Applicants, Addeo discloses a method of correcting the aspect ratio transformation. Instead of the optical anamorphic lens, Addeo includes an aspect ratio transformation circuit that can be used to transform the aspect ratio of an image by expanding an image along a direction by interpolation or by reducing an image along a direction by decimation.

“While the operation of the system (100) of FIG. 1 has been explained in connection with the transmission of an image from the station (200) to the station (300), it should be noted that images can be transmitted from the station (300) to the station (200) in the very same manner. Thus, the camera (350) at the station (300) is equipped with the anamorphic lens (380) for performing aspect ratio transformations. The station (200) is equipped with a projector (260) whose aspect ratio can be adjusted electronically or by use of the optical anamorphic lens (290) to reverse a transformation introduced at the station (300).” Col. 7, lines 8-19.

“An alternative teleconferencing system (100’) is illustrated in FIG. 5. The teleconferencing system (100’) of FIG. 5 is the same as the teleconferencing system (100) of FIG. 1 except that the anamorphic lenses (280) and (380) are not present at the cameras (250) and (350) to perform aspect ratio transformations.” Col. 7, lines 20-25.

“Instead the station (200) includes an aspect ratio transformation circuit (510) which is connected electronically to the output of the camera (250). Similarly, the station (300) includes

an aspect ratio transformation circuit (610) which is connected to the output of the camera (350). These aspect ratio transformation circuits can be used to transform the aspect ratio of an image by expanding an image along a direction by interpolation or by reducing an image along a direction by decimation. The transformation is then undone at the receiving projector either electronically or optically.” Col. 7, lines 26-36.

In stark contrast, the present invention recites, “picture image conversion means for both eliminating distortion of the selected entirety or the portion of the picture image and for converting the selected entirety or portion into high quality picture image with increased resolution in a single step” That is, in the present application, a single step operates on the distorted image to both eliminate distortion and provide a higher quality image. Based on the single step (e.g., classification adaptive processing) distortion-free and higher quality image is calculated from the stored distorted image.

Moreover, the elements of claim 2 have been added to claim 1. Claim 1 recites, ““the picture image conversion unit eliminates distortion of the entirety or a portion of the picture image selected by the selector unit and converts such picture image into high quality picture image with increased resolution by an adaptive processing in a classification adaptive processing.” The added elements clarifies the difference with Addeo by characterizing the process by which the picture image is converted into a high quality picture with increased resolution by an adaptive processing in a classification adaptive processing. This additional feature for converting the picture image into a high quality image is not disclosed in any of the references of record.

As an example of the present invention, predictive circuit (114) executes adaptive processing on the basis of optimum predictive coefficient “w” delivered from the predictive coefficient memory circuit (113) to output pixel value “y” of distortion-free picture image to the multiplexer (MPX) (37). Specification page 25, lines 13-20. Also, because prediction from a picture block having lesser number of pixels to a picture block having greater number of pixels is carried out at the stage of the adaptive processing, it is necessary to predict plural distortion-free pixel values by making use of the same distorted picture block. Specification page 20, lines 1-18.

That is, the producing of pixel eliminated the distortion and increased the resolution is carried out by the adaptive processing as a single step.

McNelley does not add the element missing from Addeo.

Claim 1 is believed patentable over the Addeo and McNelley because those references taken alone or in combination do not teach or suggest each and every element in the claim.

Independent claims 4-6 and 10-13 are believed patentable for substantially the same reasons as claim1 discussed above.

IV. DEPENDENT CLAIMS

The other claims are dependent from one of the claims discussed above and are therefore believed patentable for at least the same reasons. Because each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

CONCLUSION

Claims 1 and 3-14 are in condition for allowance. In the event the Examiner disagrees with any of statements appearing above with respect to the disclosure in the cited reference, or references, it is respectfully requested that the Examiner specifically indicate those portions of the reference, or references, providing the basis for a contrary view.

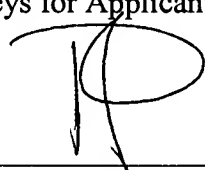
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In view of the foregoing amendments and remarks, it is believed that all of the claims in this application are patentable and Applicants respectfully request early passage to issue of the present application.

Respectfully submitted,

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